AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
04	08/07/2008	SB 080260	040179

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than Item 6)	CODE
AOC - Procurement Division 2nd & D Streets, SW Room H2-263 WASHINGTON, DC 20515	9901		

8. NAME AND ADDRESS OF CONTRACTOR (No., street, country, state and ZIP Code)	(X)	9A. AMENDMENT OF SOLICITATION NO.
		RFP080066
	X	9B. DATED (SEE ITEM 11) 07/25/2008
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 11)

CODE	FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers [ ] is extended, [X] is not extended,

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning __1__ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitaiton/contract subject matter where feasible.)

SEE ATTACHED PAGES - THE DUE DATE AND TIME FOR RECEIPT OF PROPOSALS REMAINS 26 AUG 08, 1:00 P.M.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Frederick Witcher, Jr.	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA By (Signature of Contracting Officer)	16C. DATE SIGNED

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Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
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Summary Info Continuation Page

B1 ADDITIONAL INFORMATION

1. Remove and Replace the following as indicated:

a. Remove Table of Contents, page 4 and Replace with revised page 4

b. Remove Section 04860, pages 1, 2, 11 and 12 and Replace with revised pages 1, 2, 11 and 12

c. Remove Section 13915, page 10 and Replace with revised page 10

2. The following specification sections are added:

a. Section 01322, "PHOTOGRAPHIC DOCUMENTATION"

b. Section 04902, "STONE RESTORATION AND CLEANING"

BASE

Number	Commodity Name	Quantity	Unit of Issue	Unit Price ($)	Total Cost ($, Inc. disc)
1	EMERGENCY GENERATOR SYSTEM, RSOB, PROJECT 040179, GENERATOR #1 ONLY	Total : 1.00	EA	$	$
	Description: Includes all labor, material, equipment and incidentals for the Emergency Generator System, Russell Senate Office Building (RSOB), Washington, D.C., as defined in the General Conditions, Supplementary Conditions, Representations and Certifications, Solicitation Conditions, all specifications and drawings, attachments, etc.				

Lump-Sum Price for Base $

OPTION 1

Number	Commodity Name	Quantity	Unit of Issue	Unit Price ($)	Total Cost ($, Inc. disc)
2	OPTION #1 - EMERGENCY GENERATOR SYSTEM, RSOB, PROJECT 040179, GENERATOR #2 ONLY	Total : 1.00	EA	$	$
	Description: Includes all labor, material, equipment and incidentals for the Emergency Generator System, Russell Senate Office Building (RSOB), Washington, D.C., as defined in the General Conditions, Supplementary Conditions, Representations and Certifications, Solicitation Conditions, all specifications and drawings, attachments, etc. Includes 1000KW generator with 1600A Switch and all HVAC system & associated devices attached to Generator #2 (sound attenuator, louvers, muffler system/generator exhaust pipes, motorized dampers) shown in drawing M301 Section B/M102/M103. .				

Lump-Sum Price for Option 1 $

Lump-Sum Price for All Options	$
Lump-Sum Price for Base and All Options	$

SPECIFICATIONS

DIVISION 01 - GENERAL REQUIREMENTS

DIVISION 02 - SITEWORK

DIVISION 03 - CONCRETE

DIVISION 04 - MASONRY

DIVISION 05 - METALS

SECTION 01322 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for the following:

1. Preconstruction photographs.
2. Periodic construction photographs.

B. See Division 1 Section "Closeout Procedures" for submitting digital media as Project Record Documents at Project closeout.

1.2 SUBMITTALS

A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same label information as corresponding set of photographs.

B. Construction Photographs: Submit two prints of each photographic view within seven days of taking photographs.

1. Format: 4-by-6-inch smooth-surface matte prints on single-weight commercial-grade photographic paper, enclosed back to back in clear plastic sleeves that are punched for standard 3-ring binder.
2. Identification: On back of each print, provide an applied label or rubber-stamped impression with the following information:

a. Name of Project.
b. Name of Architect (i.e. The Architect of the Capitol).
c. Name of Contractor.
d. Date stamped photograph is required.
e. Unique sequential identifier.

3. Digital Images: Submit a complete set of digital image electronic files with each submittal of prints as a Project Record Document on CD-ROM. Identify electronic media with date photographs were taken. Submit images that have same aspect ratio as the sensor, uncropped.

1.3 USAGE RIGHTS

A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

A. Digital Images: Provide images in uncompressed TIFF format, produced by a digital camera with minimum sensor size of 3.0 megapixels, and at an image resolution of not less than 1024 by 768 pixels.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

A. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.

B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

1. Date and Time: Include date and time in filename for each image.
2. Field Office Images: Maintain one set of images on CD-ROM in the field office at Project site, available at all times for reference. Identify images same as for those submitted to Architect.

C. Preconstruction Photographs: Before commencement of excavation, commencement of demolition and starting construction, take color digital photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.

1. Take eight photographs to show existing conditions adjacent to property before starting the Work.
2. Take eight photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
3. Take photographs to include all pieces of existing stone to be demounted. Chalk the identification number as indicated in drawings to each stone before taking photographs. Identification numbers shall be clearly read in photographs.
4. Take photographs of each firestop both sides prior to finish covering up.

D. Periodic Construction Photographs: Take 12 color digital photographs weekly with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.

E. Additional Photographs: Architect may issue requests for additional photographs, in addition to periodic photographs specified. Additional photographs will be paid for by Change Order and are not included in the Contract Sum.

1. Three days' notice will be given, where feasible.
2. In emergency situations, take additional photographs within 24 hours of request.
3. Circumstances that could require additional photographs include, but are not limited to, the following:

    a. Special events planned at Project site.
    b. Immediate follow-up when on-site events result in construction damage or losses.
    c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
    d. Substantial Completion of a major phase or component of the Work.
    e. Extra record photographs at time of final acceptance.
    f. Architect's request for special publicity photographs.

END OF SECTION 01322

SECTION 04860 - STONE VENEER ASSEMBLIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. **Drawings and general** provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. **This Section includes stone veneer in the following applications**:

1. On concrete retaining walls.
2. Anchored to concrete backup.

B. **Related Sections include the following**:

1. Division 3 Section "Cast-in-Place Concrete" for dovetail slots in concrete for anchoring stone veneer.
2. Division 4 Section "Unit Masonry Assemblies" for cavity-wall insulation, concealed flashing, horizontal joint reinforcement, and veneer anchors.
3. Division 7 Section "Building Insulation" for insulation installed between stone veneer assemblies and backup material.

C. **Products installed, but not furnished, in this Section include the following**:

1. Steel for stone veneer assemblies specified in Division 5 Section "Metal Fabrications."

1.3 SUBMITTALS

A. **Product Data**: For each type of product indicated.

1. For stone varieties proposed for use on Project, include data on physical properties specified.

B. **Stone Samples for Verification**: For each color, grade, finish, and variety of stone required.

C. **Colored Mortar Samples for Verification**: For each color required. Label Samples to indicate types and amounts of pigments used.

D. **Qualification Data**: For Installer.

E. **Photographs of salvaged stone balustrade assembly for reuse. Refer to Section 01322, "Photographic Documentation".**

1.4 QUALITY ASSURANCE

A. **Installer Qualifications**: An installer who employs experienced stone masons and stone fitters who are skilled in installing stone veneer assemblies similar in material, design, and extent to those indicated for this Project and whose projects have a record of successful in-service performance.

B. **Source Limitations for Stone**: Obtain each variety of stone, regardless of finish, from a single quarry with resources to provide materials of consistent quality in appearance and physical properties.

1. Obtain each variety of stone from a single quarry, whether specified in this Section or in another Section of the Specifications.

C. **Source Limitations for Mortar Materials**: Obtain ingredients of a uniform quality for each mortar component from a single manufacturer and each aggregate from one source or producer.

1.5 DELIVERY, STORAGE, AND HANDLING

A. **Store cementitious** materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.

B. **Store aggregates** where grading and other required characteristics can be maintained and contamination avoided.

C. **Deliver preblended**, dry mortar mix in moisture-resistant containers designed for lifting and emptying into dispensing silo. Store preblended, dry mortar mix in delivery containers on elevated platforms, under cover, and in a dry location or in a metal dispensing silo with weatherproof cover.

D. **Store masonry accessories**, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.6 PROJECT CONDITIONS

A. **Protection of Stone Veneer Assemblies**: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed stone veneer assemblies when construction is not in progress.

1. Extend cover a minimum of 24 inches down both sides and hold cover securely in place.

B. **Stain Prevention**: Immediately remove mortar and soil to prevent them from staining the face of stone veneer assemblies.

1. Protect base of walls from rain-splashed mud and mortar splatter by coverings spread on the ground and over the wall surface.
2. Protect sills, ledges, and projections from mortar droppings.
3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
4. Turn scaffold boards near the wall on edge at end of each day to prevent rain from splashing mortar and dirt on completed stone veneer assemblies.

A. **Prepare stone-joint** surfaces for pointing with mortar by removing dust and mortar particles. Where setting mortar was removed to depths greater than surrounding areas, apply pointing mortar in layers not more than 3/8 inch deep until a uniform depth is formed.

B. **Point stone joints** by placing and compacting pointing mortar in layers not more than 3/8 inch deep. Compact each layer thoroughly and allow to become thumbprint hard before applying next layer.

C. **Tool joints, when pointing** mortar is thumbprint hard, with a smooth jointing tool to produce the following joint profile:

1. Joint Profile: Smooth, flat face slightly below edges of stone.

3.7 ADJUSTING AND CLEANING

A. **Remove and replace** stone veneer assemblies of the following description:

1. Broken, chipped, stained, or otherwise damaged stone. Stone may be repaired if methods and results are approved by Architect.
2. Defective joints.
3. Stone veneer assemblies not matching approved samples.
4. Stone veneer assemblies not complying with other requirements indicated.

B. **Replace in a manner** that results in stone veneer assemblies' matching approved samples, complying with other requirements, and showing no evidence of replacement.

C. **In-Progress Cleaning**: Clean stone veneer assemblies as work progresses. Remove mortar fins and smears before tooling joints.

D. **Final Cleaning**: After mortar is thoroughly set and cured, clean stone veneer assemblies as follows:

1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
2. Test cleaning methods on mockup; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before cleaning stone veneer assemblies.
3. Protect adjacent stone and nonmasonry surfaces from contact with cleaner by covering them with liquid strippable masking agent, polyethylene film, or waterproof masking tape.
4. Wet wall surfaces with water before applying cleaner; remove cleaner promptly by rinsing thoroughly with clear water.
5. Clean stone veneer assemblies by bucket and brush hand-cleaning method described in BIA Technical Note No. 20 Revised II, using job-mixed detergent solution.
6. Clean stone veneer assemblies with proprietary acidic cleaner applied according to manufacturer's written instructions.

E. See Section 04902, "STONE RESTORATION AND CLEANING", for cleaning procedures.

3.8 EXCESS MATERIALS AND WASTE

A. **Excess Stone**: Stack excess stone where directed.

B. **Disposal as Fill Material**: Dispose of clean masonry waste, including mortar and excess or soil-contaminated sand, by crushing and mixing with fill material as fill is placed.

1. Crush masonry waste to less than 4 inches in greatest dimension.
2. Mix masonry waste with at least two parts of specified fill material for each part of masonry waste. Fill material is specified in Division 2 Section "Earthwork."
3. Do not dispose of masonry waste as fill within 18 inches of finished grade.

C. **Excess Masonry Waste**: Remove excess clean masonry waste that cannot be used as fill, as described above, and other waste, and legally dispose of off 's property.

END OF SECTION 04860

SECTION 04902 - STONE RESTORATION AND CLEANING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Repairing stonework, including replacing damaged units.
2. Cleaning exposed stone surfaces.

1.2 DEFINITIONS

A. Low-Pressure Spray: 100 to 400 psi (690 to 2750 kPa); 4 to 6 gpm (0.25 to 0.4 L/s).

B. Medium-Pressure Spray: 400 to 800 psi (2750 to 5500 kPa); 4 to 6 gpm (0.25 to 0.4 L/s).

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include recommendations for application and use.

B. Samples: For each exposed material required for replacing or repairing existing materials.

C. Qualification Data: For restoration specialists.

1.4 QUALITY ASSURANCE

A. Mockups: Prepare mockups of restoration and cleaning as follows to demonstrate aesthetic effects and qualities of materials and execution.

1. Patch three small areas at least 1 inch (25 mm) in diameter for each type of stone material indicated to be patched.
2. Clean an area approximately 25 sq. ft. (2.3 sq. m) in area for each type of stone and surface condition.
3. Rake out joints in two separate areas approximately 36 inches (900 mm) high by 72 inches (1800 mm) wide for each type of repointing required and repoint one of the two areas.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the products specified.
2. Products: Subject to compliance with requirements, provide one of the products specified.
3. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.
4. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.2 STONE MATERIALS

A. Stone: Provide natural building stone of variety, color, finish, size, and shape to match existing stone.

1. For existing stone that exhibits a range of colors, finishes, sizes, or shapes, provide stone that matches that range.

2.3 MORTAR MATERIALS

A. Portland Cement: ASTM C 150, Type I or Type II.

1. Provide white cement containing not more than 0.60 percent total alkali when tested according to ASTM C 114.

B. Hydrated Lime: ASTM C 207, Type S.

C. Mortar Sand: ASTM C 144, unless otherwise indicated.

1. Color: Provide natural sand; of color necessary to produce required mortar color.
2. For pointing mortar, provide sand with rounded edges.
3. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands, if necessary, to achieve suitable match.

D. Mortar Pigments: Natural and synthetic iron oxides, compounded for mortar mixes.

E. Water: Potable.

2.4 CLEANING MATERIALS

A. Water for Cleaning: Potable.

B. Hot Water: Heat water to a temperature of 140 to 160 deg F (60 to 71 deg C).

C. Job-Mixed Detergent Solution: Solution prepared by mixing 2 cups (0.5 L) of tetrasodium polyphosphate (TSPP), ½ cup (125 mL) of laundry detergent, and 20 quarts (20 L) of hot water for every 5 gal. (20 L) of solution required.

2.5 MASONRY CLEANERS

A. Job-Mixed Detergent Solution: Solution of 1/2-cup (0.14-L) dry-measure tetrasodium polyphosphate and 1/2-cup (0.14-L) dry-measure laundry detergent dissolved in 1 gal. (4 L) of water.

B. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from stone masonry surfaces without discoloring or damaging masonry surfaces; expressly approved for intended use by stone producer.

1. Products:

a. Diedrich Technologies, Inc.; 101G Granite, Terra Cotta, and Brick Cleaner.
b. Diedrich Technologies, Inc.; 202 New Masonry Detergent.
c. Dominion Restoration, Inc.; DR-60 Stone and Masonry Cleaner.
d. Hydrochemical Techniques, Inc.; Hydroclean Brick, Granite, Sandstone and Terra Cotta Cleaner (HT-626).
e. ProSoCo, Inc.; Sure Klean No. 600 Detergent.
f. ProSoCo, Inc.; Sure Klean Restoration Cleaner.

2.6 MIXES

A. Mortar Mixes: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Mix materials in a clean, mechanical batch mixer.

1. Mixing Pointing Mortar: Thoroughly mix cementitious materials and sand together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that will retain its form when pressed into a ball. Maintain mortar in this dampened condition for 15 to 30 minutes. Add remaining water in small portions until mortar reaches desired consistency. Use mortar within one hour of final mixing; do not retemper or use partially hardened material.
2. Mortar Pigments: Do not exceed a pigment-to-cement ratio of 1:10 by weight.

B. Do not use admixtures of any kind in mortar, unless otherwise indicated.

C. Pointing Mortar for Stone: 1 part white portland cement, 2 parts lime, and 6 parts sand.

1. Add mortar pigments to produce mortar colors required.

D. Rebuilding (Setting) Mortar: 1 part white portland cement, 1 part lime, and 6 parts sand.

E. Rebuilding (Setting) Mortar: Comply with ASTM C 270, Proportion Specification, Type S, unless otherwise indicated, with cementitious material limited to portland cement and lime.

F. Chemical Cleaning Solutions: Dilute chemical cleaners with water to produce solutions not exceeding concentration recommended by chemical cleaner manufacturer.

1. Acidic Cleaner Solution for Unpolished Stone: Dilute with water to produce hydrofluoric acid content of 3 percent or less. Use only on unpolished granite, unpolished dolomite marbles, and siliceous sandstone.

2.7 Contractor to engage an independent agency to analyze existing mortar to determine mortar mix proportions.

PART 3 - EXECUTION

3.1 PROTECTION

A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from stone restoration work.

B. Prevent chemical cleaning solutions from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.

1. Cover adjacent surfaces with materials that resist chemical cleaners used unless chemical cleaners will not damage surfaces. Use materials that contain only waterproof, UV-resistant adhesives. When no longer needed, promptly remove masking to prevent adhesive staining.
2. Keep wall wet below area being cleaned to prevent streaking from runoff.

3.2 STONE REMOVAL, REPLACEMENT, AND REINSTALLATION

A. Stone Removal: Carefully remove and tag stone as indicated in the drawings.

B. Support and protect remaining stonework that surrounds removal area. Maintain flashing, reinforcement, lintels, and adjoining construction in an undamaged condition.

C. Remove in an undamaged condition as many whole stone units as possible.

1. Remove mortar, loose particles, and soil from stone by cleaning with hand chisels, brushes, and water.
2. Remove sealants by cutting close to stone with utility knife and cleaning with solvents.

D. Clean stone surrounding removal areas by removing mortar, dust, and loose particles.

E. Reinstall removed stone new stone matching existing stone, including size. Cut some existing stones to fit design as indicated in the drawing. Butter vertical joints for full width before setting and set units in full bed of mortar, unless otherwise indicated.

1. Tool mortar joints to match joints of surrounding existing stonework.

3.3 IN-PROGRESS CLEANING AND MORTAR CURING

A. Clean stone assemblies as work progresses. Remove mortar fins and smears before tooling joints. Proceed with cleaning in an orderly manner; work from top to bottom of each scaffold width and from one end of each elevation to the other. Do not remove identification tags during this stage of work.

B. Use only those cleaning methods indicated for each material and location.

1. Do not use metal wire brushes.
2. Use spray equipment that provides controlled application at volume and pressure indicated, measured at spray tip.
3. For chemical cleaner spray application, use low-pressure tank or chemical pump suitable for chemical cleaner indicated, equipped with cone-shaped spray tip.
4. For water spray application, use fan-shaped spray tip that disperses water at an angle of 25 to 50 degrees.

C. Chemical Cleaner Application Methods: Apply chemical cleaners to stone surfaces to comply with chemical cleaner manufacturer's written instructions; use brush or spray application methods, at Contractor's option. Do not spray apply at pressures exceeding 50 psi (345 kPa). Do not allow chemicals to remain on surface for periods longer than those indicated or recommended by manufacturer.

D. Cold-Water Soak: Apply cold water by prolonged spraying until surface encrustation has softened sufficiently to permit its removal by water wash.

1. Remove soil and softened surface encrustation from stone with cold water applied by low-pressure spray.

E. Detergent Cleaning:

1. Wet stone with cold water applied by low-pressure spray.
2. Scrub stone with detergent solution using medium-soft brushes until soil is thoroughly dislodged and can be removed by rinsing.
3. Rinse with cold water applied by medium-pressure spray.

F. Cure mortar by maintaining in thoroughly damp condition for at least 72 hours including weekends and holidays.

1. Acceptable curing methods include covering with wet burlap and plastic sheeting, periodic hand misting, and periodic mist spraying using system of pipes, mist heads, and timers.

3.4 FINAL CLEANING

1. After mortar has fully hardened, and the stone work has been inspected and approved by the Architect, remove identification tags. Thoroughly clean exposed stone surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, spray applied at low pressure. Point the damaged mortar if any is found. Avoid using metal scrapers or brushes.
2. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
3. Test cleaning methods on mockup; leave one-half of panel uncleaned for comparison purposes.
4. Protect adjacent stone and non-masonry surfaces from contact with cleaner.
5. Wet wall surfaces with water before applying cleaner; remove cleaner promptly by rinsing thoroughly with clear water.
6. Clean stone assemblies by bucket and brush hand-cleaning method described in BIA Technical Note No. 20 Revised II, using job-mixed detergent solution.

END OF SECTION 04902

A. **Install labeling and pipe** markers on equipment and piping according to requirements in NFPA 13 and in Division 15 Section "Mechanical Identification."

3.11 FIELD QUALITY CONTROL

A. **Perform the following** field tests and inspections and prepare test reports:

1. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
2. Flush, test, and inspect sprinkler systems according to NFPA 13, "Systems Acceptance" Chapter.
3. Coordinate with fire alarm tests. Operate as required.

B. **Report test results** promptly and in writing to Architect and authorities having jurisdiction.

C. **All tests shall be witnessed by the AOC Fire Marshall's office. Provide fifteen (15) calendar days wriiten notice prior to testing.**

END OF SECTION 13915